

assuredly it would exclude all who are not decent elementary geometers. And who shall say, Sir, that the public never will require such a return to genuine and permanent construction? They can pay for deep chancels, useless buttresses, grinning corbel monsters, and fifty costly but vain expedients for dressing up a barn into a sham Romish mediæval church, and why not for rendering a church durable, monumental, and truthful in its artistic treatment? As "J. F." once remarked, John Bull is penny wise when he sees the pence go for no object but to keep up false appearances or mask a hollow deception; but show him solid advantages, and he can be pound foolish, and even afford a little merrily to carry out a principle (which we do not ask).

E. L. G.

ROOF OF WESTMINSTER HALL.

I HOPE you will allow me, to intrude a few lines in your journal in answer to some observations by a writer in the *Athenæum* of the 27th April, with reference to Westminster Hall roof, which he appears to condemn both in point of principle as well as design. I believe before we condemn such a work we should first look at the object that was intended, and instructions perhaps given by the royal master to the architect, to construct a large room for a particular purpose, with as few obstructions as possible, and one that would be feasible, imposing, and grand. Supposing these, Sir, to be the instructions to the architect, I would ask whether it were possible to construct a room and roof wherein these essentials have been so fully carried out as in Westminster Hall. We here find a room 290 feet in length, with a span of 68 feet, constructed of timber, and which has stood the test of ages from the time of Richard II. to the present century, a period of 470 years. Had this roof been so defective in construction or faulty in material, would it have remained an example at the present day? At the present time, wherein some of the largest roofs have been constructed in point of span, I would ask if the attempt has been once made to construct one of them of the material recommended by the objector, viz., stone? We find them either of wood or iron, and very beautiful many of them are in point of construction and effects. It might serve as a very useful lesson if any good practical man of the present day would present us with a constructive roof in stone of the same dimensions as Westminster Hall, and entirely free from internal supports, and would at the same time give us the estimated difference of cost of such a roof constructed of stone or timber.

W. T. T.

ARCHITECTURE AND DECORATION ABROAD.

Mons. F. KREUTER, the architect to the King of Bavaria, is about to construct for his Majesty, in Munich, a "Winter Garden." It will occupy an area of 40,000 feet square, be constructed wholly of iron and glass, and cost about 50,000*l*. The rigour of the winter there enforces the use of double glass inclosing a certain quantity of air, as a bad conductor. Mons. Kreuter has recently been in England to obtain information as to baths and wash-houses, and other ameliorating institutions, the foundation of which is contemplated by the King of Bavaria.—One of our correspondents, in Vienna, complains greatly of the injury done to the profession there by some architects who have become contractors, and contractors who call themselves architects. In Vienna, he says, all respect for the profession has been destroyed.—At Berlin they have nearly completed a new theatre of large dimensions and great magnificence. It is to be called the "Theatre Frederick-William." In the February number (1850) of the *Journal de l'Architecture et des Arts relatifs à la Construction*, a well-conducted periodical, published in Brussels, plans, section, and description of the model lodging-house in Spicer-street, Whitechapel, and a view of the school-house in the parish of St. Martin-in-the-Fields, London, are given with due acknowledgment to THE BUILDER as the source of their information.—At Nîmes a church has been erected, from the designs of

M. Quastel. It is dedicated to St. Paul, and is in the style of the buildings of the twelfth century remaining in France. According to our authority, it is fitted up with great splendour, with mosaic pavement in the choir, a splendid ciborium, stained glass, carved stalls, and mural paintings.—Several important works of decoration in some churches in Paris have just been completed at the expense of the municipal administration. In the church of St. Gervais, says the *Revue des Beaux-Arts*, which has been receiving embellishments for these ten years past, and is now one of the most remarkable edifices of the capital, a new chapel has been painted in fresco by Mons. Caminade. The walls, columns, and groins of the vaults are further enriched with arabesques, &c., in gold and colour.—In the church of St. Merry, a new chapel has been decorated with frescoes by M. Sebastian Cornu.—Mons. Galliard has finished a large mural painting, representing the four evangelists, which will complete the decoration of the choir of the church of St. Laurent, at Paris. It was commissioned by the *Préfet* of the Seine.—Two newly-purchased pictures have been placed in the Louvre, one a landscape by Hobbins, the other a portrait of an Augustine monk, by Velasquez, painted in 1643.

PRINCE ALBERT ON SEWAGE MANURE. A NEW APPLICATION OF AN OLD PRINCIPLE.

AMONGST the thousand and one suggestions, schemes, and inventions, of all those who have of late years been ransacking either their own ingenious brains, or the various records of past inventions, for the adaptation of all sorts of principles, practicable or impracticable, in the endeavour to realize one of the most important and vital problems of the age,—namely, the adoption of some one simple and efficient organism for the proper elimination and removal of town sewage, and its conversion from a deadly nuisance into a valuable agency of fertilization and life,—it is somewhat singular that it should have never occurred to any one of them (so far as we know) that the simple and practical hydrostatic principle applied—for example—in the filtration and purification of the Thames water, might, in some elaborated scheme or other, have been adopted, with the twofold view of at once clearing the sewage water of towns of its noxious effluvia and at same time condensing and separating its fertilizing sewage into portable and valuable material for the cultivation of the soil. True, ends more or less nearly identical have been proposed to be reached in various ways—as by chemical precipitation, and by comparatively tedious and cumbersome subsidence,—but never (if we mistake not) by such means as this,—so simple, so economical, and so effectual.

The application of the principle alluded to is, in detail, simply this: to form a tank, with a perforated false bottom, on which a filtering medium should be laid; and at one end to admit the sewage into the tank below the false bottom, when, according to the principle of water regaining its own level, the sewage liquid will rise in the tank through the filtering bed to its original level; and, provided the filtering medium be of the proper nature and of sufficient thickness, it will be thus freed from all mechanical impurity, and will pass off into the drain, at the other end of the tank, as clear and clean as spring water, while not only would all the solid manure of the liquid sewage be collected, in a rich deposit like guano, below the false bottom of the tank,—but, according to the chemical nature and composition of the filtering medium, much of the matter still in solution, even while thus being separated from that superabundant or insoluble quantity which floated in mere suspension, might be chemically fixed in the matter of the filtering medium itself, also into manure of the richest quality. The singular power of some soils to absorb the salts of solution in aqueous manure, and to allow the mere clear water only to escape, is at present, we understand, engaging the attention of able experimentalists, and therefore the most proper elements, or artificial soils, for a filtering medium like this will doubtless soon be satisfactorily ascertained: meantime, those actually used—for this is no

mere speculative suggestion, but an apparatus already in experimental operation—are charcoal, gypsum, and clay—themselves of positive value in the agricultural treatment of soils.

Besides all this, the utility of such a mode of dealing with sewage,—a mode, be it noted, easily, cheaply, and at once applicable to every existing form or arrangement of sewer or drain,—is really by no means dependent on the decided or foregone preference of solid manure to liquid sewage; for even on the idea of Lord Brougham and others, as to the singular values of a clear and dilute solution of the soluble salts of manure in watering soils or crops, here is their most handy instrument, in the upward, rapid, and effectual filtration of liquid sewage, only in this case through such a filtering medium as shall not absorb all the valuable salts in solution.

Having thus briefly placed this new and important adaptation of a known principle before our readers, standing as it does simply on a few of its own leading merits, we may now, in conclusion, state that the author of the suggestion is Prince Albert, who, while recommending it to the experimental consideration of the Royal Agricultural Society of England, modestly disclaims all desire to decide between the merits of the solid and the fluid form of sewage for ulterior purposes, as well as all desire to appropriate as his own anything but the adaptation (and a happy one it is) of this peculiar mode of filtration and separation to a twofold purpose which he feels to be of the utmost importance—to all, in a sanitary view, and to agriculturists, in the attainment of a series of profitable and increasing returns from the soil which they cultivate. As one of the governors of the society, his Royal Highness transmitted to the council, through Colonel the Hon. Charles Grey, the detailed communication from which we have drawn these few particulars; and we cannot help remarking that such a communication constitutes a striking evidence not only of an active and ingenious mind; but of a rectitude and excellence of spirit and of motive, as prevailing in the most influential of all directions, that is truly refreshing, as it is most auspicious to the destinies of an empire, on which the same clear head and right heart is also at this moment concentrating the attention and the sympathies of all nations, in the universal brotherhood of mutual interests and international peace.

A DAY IN DERBY.

DERBY—right pleasant "Darbie," as we collect it—is greatly changed. But a few years since there mustered only 10,000 inhabitants. Then the Derwent hurried on its jovous way, sparkling brilliantly; the sun shone on its course and lambs were seen basking on its green bank; the gardens of the few suburban seats dotting its shores extended to the water's edge, and the wherry—the delight of its healthy freight—was safely moored alongside the apology for a quay. Now, all is changed: a cloud has darkened the sky. The magic wand of "business" has transformed the hitherto rural locality into what the stranger may call "a dirty town begrimed with soot." The clear and limpid waters of the Derwent of former days are now black, blue, and red, from the lofty and numerous manufactories and dyeing houses crowding its banks. Its very course has been interrupted and obstructed by dams and weirs, giving extensive mill power and adding greatly to wealth,—producing, indeed, some very pretty "Niagara falls" in miniature, but wholly destroying navigation,—rendering some places deep, some shallow, some running slowly but sure, some running along with great noise and fantastic shapes, but having no substance, making it truly a shadower forth of the mind and fortune of many busy mortals who are within reach of its waters. Yet, for all this, Derby is a clean town—and a pleasant one to hoot, if we compare it with some of the leviathans. This the situation in a great measure helps, being built on rising ground, the lowest portion of which is sufficiently high to present the Derwent with loads of golden treasure—to the farmer invaluable, but to its waters destruction. The refuse of between 50,000 and 60,000 who now call Derby their abiding place is surely of greater